

NINE MILE POINT NUCLEAR STATION

SITE ADMINISTRATIVE PROCEDURES

PROCEDURE NO. APN-10A

TRAINING OF LICENSED OPERATOR CANDIDATES

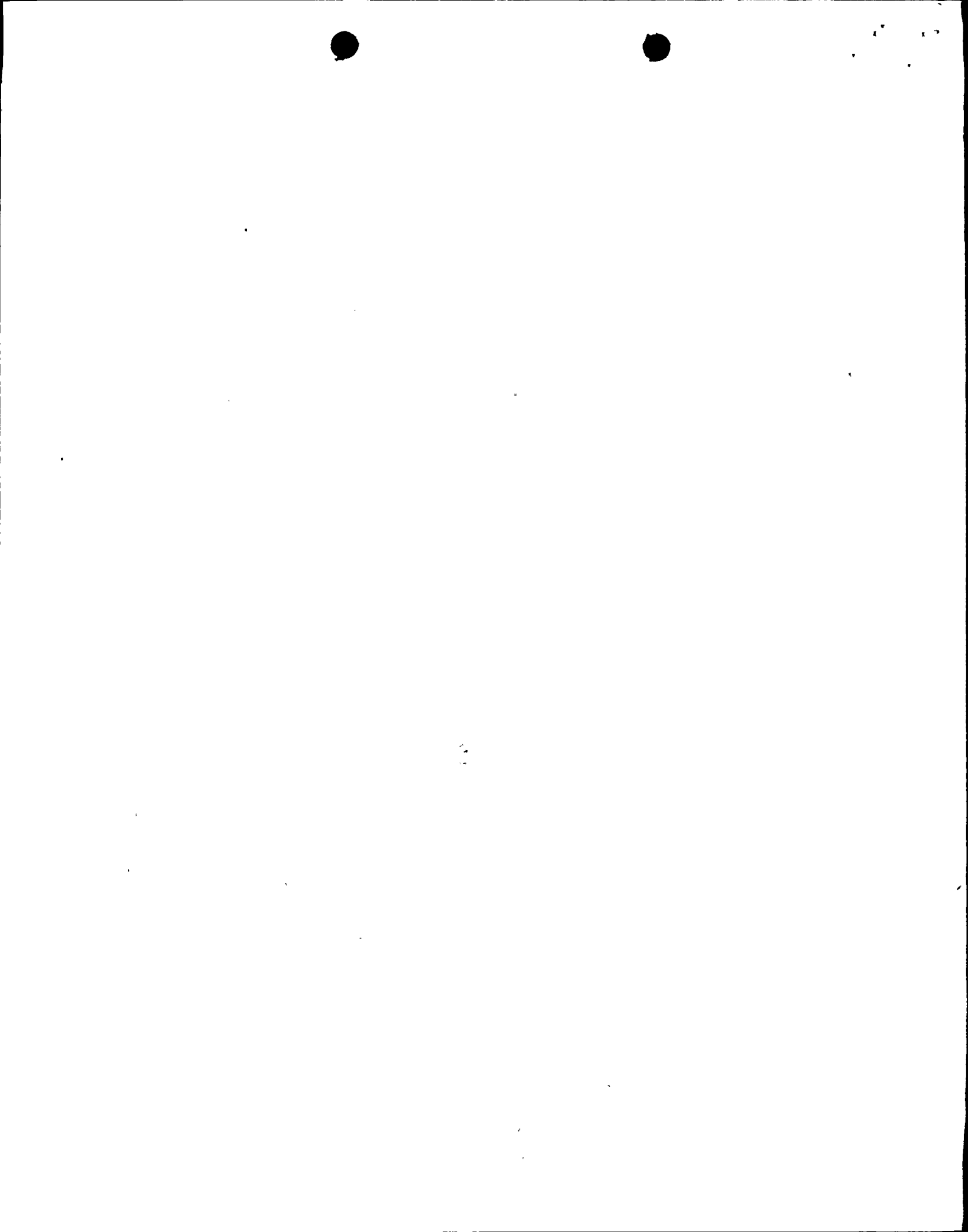
<u>APPROVALS</u>	<u>SIGNATURES</u>	<u>DATES AND INITIALS</u>		
		<u>REVISION 2</u>	<u>REVISION 3</u>	<u>REVISION 4</u>
Station Superintendent NMPNS T. W. Roman	<u><i>T. W. Roman</i></u>	<u><i>Def 7/16/80</i></u>	_____	_____
General Superintendent Nuclear Generation Chairman of S.O.R.C. T. J. Perkins	<u><i>T. J. Perkins</i></u>	<u><i>TJP 5/6/80</i></u>	_____	_____
Quality Assurance Concurrence				
Q. A. Manager W. M. Bryant	<u><i>W. M. Bryant</i></u>	<u><i>WMB 5/7/80</i></u>	_____	_____

Summary of Pages

Revision 2, dated April 1980, consists of pages 1 through 4.

NIAGARA MOHAWK POWER CORPORATION

THIS PROCEDURE NOT TO BE USED
AFTER April 1982, SUBJECT TO
PERIODIC REVIEW.



TRAINING OF LICENSED OPERATOR CANDIDATES

1.0 PURPOSE

This procedure describes the training program for replacement of licensed operator personnel as called for in Section 5.5.2 of ANSI N 18.1-1971 and 10 CFR 55.

2.0 REFERENCES

ANSI N 18.1-1971
10 CFR 55
NUREG 0094
USNRC Letter, Harold Denton to all Power Reactor Applicants and Licensees. Subject: Qualifications of Reactor Operators, March 28, 1980.

3.0 EVALUATION OF CANDIDATES

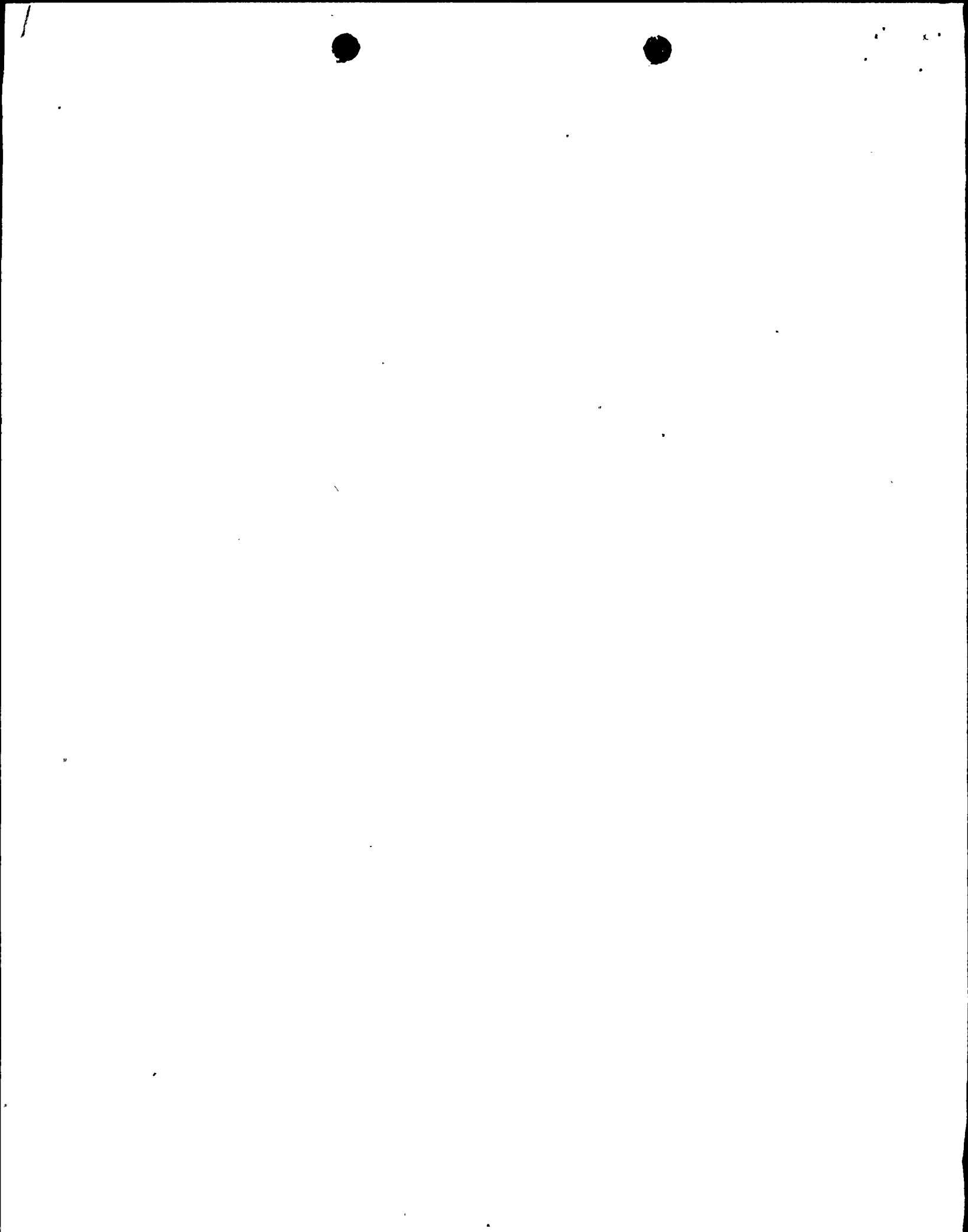
3.1 Physical Condition

The general health and physical condition of the candidate shall be such that he/she is not likely to cause operational errors which would endanger public health and safety. Upon presentation of his/her application for a license he/she shall show evidence of satisfactory completion of a medical examination as prescribed in 10 CFR 55.60.

3.2 Education and Experience

Candidates for a Reactor Operator license shall have a high school diploma or equivalent and sufficient experience such that at the time of licensing examination they will have two years of power plant experience of which a minimum of 1 year shall be nuclear power plant experience. A minimum time of six months shall be at the plant for which they seek a license. At least three months of this time shall include participation in on-the-job training which involves manipulation of the Nuclear Power Plant controls during day to day operation. In addition the candidate shall have manipulated the controls of the reactor facility during five significant reactivity changes as described in the operator requalification program for the facility. Every effort should be made to have a diversification of reactivity changes.

Candidates for a Senior Reactor Operator License shall have a high school diploma or equivalent and sufficient experience such that at the time of licensing examination they will have 4 years of responsible power plant experience. Responsible power plant experience should be that obtained as a control room operator (fossil or



3.2 Education and Experience (Cont.)

nuclear) or as a power plant staff engineer involved in the day-to-day activities of the facility. A maximum of 2 years power plant experience may be fulfilled by academic or related technical training, on a one-for-one time basis. Two years shall be nuclear power plant experience. At least 6 months of the nuclear power plant experience shall be at the plant for which they seek a license. Candidates for senior operator licenses shall have held an operator license for one year.

3.3 General

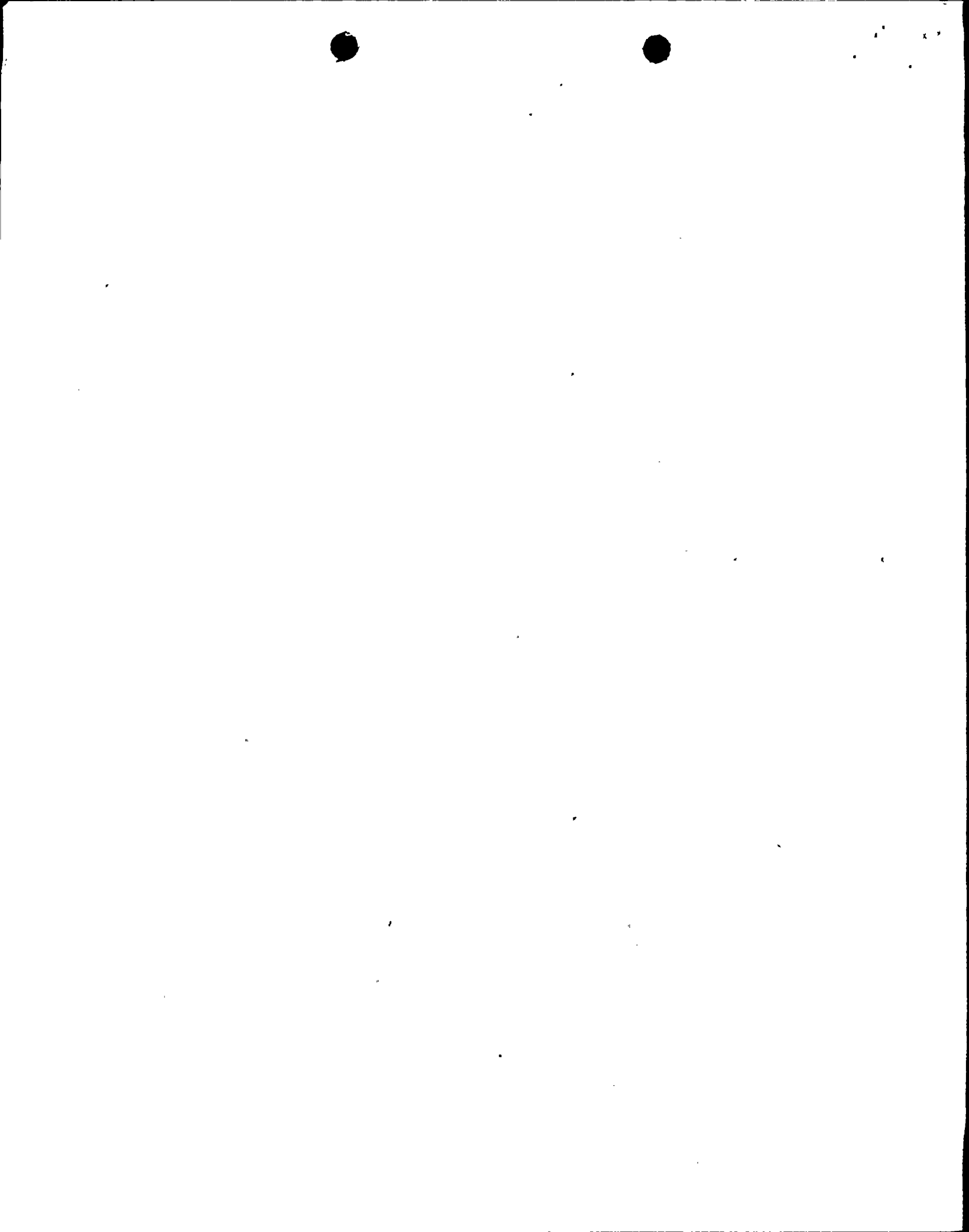
All candidates should possess a high degree of manual dexterity and mature judgment such that upon examination by the Station Superintendent or his consultant they shall show evidence of ability to progress to high levels of responsibility and qualify for NRC licensing.

4.0 TECHNICAL TRAINING

4.1 Technical training for candidates for the NRC Operator License shall consist of scheduled classroom sessions to cover the following subjects.

- 4.1.1 Theory and principles of reactor operation.
- 4.1.2 General and specific plant operating characteristics.
- 4.1.3 Plant instrumentation and control systems.
- 4.1.4 Plant protection system.
- 4.1.5 Engineered safety systems.
- 4.1.6 Normal, abnormal and emergency operating procedures.
- 4.1.7 Radiation control and safety.
- 4.1.8 Technical Specifications
- 4.1.9 Applicable portions of title 10, Chapter 1, Code of Federal Regulations
- 4.1.10 Heat transfer, fluid flow and thermodynamics.
- 4.1.11 Use of installed plant systems to control or mitigate an accident in which the core is severely damaged.
- 4.1.12 Reactor and plant transients and accidents.

4.2 Technical training for candidates for NRC Senior Operator License will consist of scheduled classroom sessions in addition to those listed in 4.1 above. These sessions shall include and place increased emphasis on the following subjects.



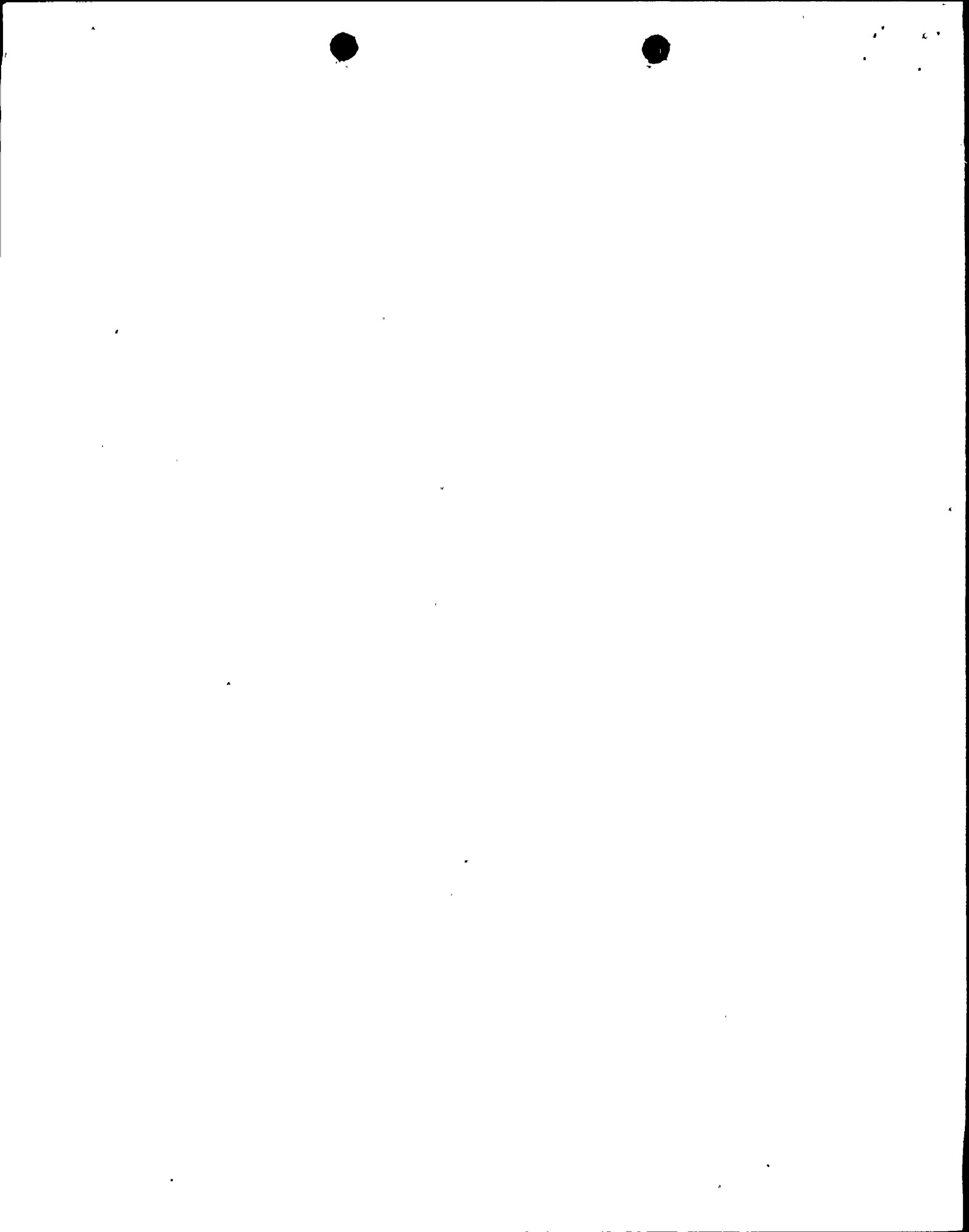
- 4.2.1 Reactor Theory
- 4.2.2 Procedures and equipment available for handling and disposal of radioactive materials and effluents.
- 4.2.3 Specific operating characteristics of the operating plant.
- 4.2.4 Fuel handling and core parameters
- 4.2.5 Administrative Procedures, Conditions and limitations.

5.0 ON SHIFT TRAINING

- 5.1 Candidates who are not already assigned to a regular operating shift shall be given an assignment which will provide for regular participation in day-to-day operations. Operations shall include manipulation of the reactor and reactor equipment controls.
 - 5.1.1 Senior operator candidates shall have 3 months of shift training as an extra person on shift.
 - 5.1.2 Reactor operator candidates shall have 3 months training on shift as an extra person in the control room.
- 5.2 Each candidate shall be furnished a training manual which shall contain checklists of plant evolutions which the candidate should perform or simulate in the course of his/her on-the-job training. These checklists shall be prepared under the direction of the Training Supervisor and shall as a minimum include all of the operator manipulations and responses referred to in 10 CFR 55.23
- 5.3 Whenever a candidate participates in a plant evolution he/she shall log the date of the exercise and note whether he/she actually performed the manipulation or it was a simulation. Each entry shall be initialed by the Licensed Operator or Licensed Senior Operator supervising the training.
- 5.4 The Training Supervisor or his designee shall review each individuals training manual quarterly. He shall arrange with the Operations Supervisor to schedule manipulations or simulations so that the candidate may complete prescribed evolutions on a timely basis.

6.0 OFF SITE SIMULATOR TRAINING

Visits to off site reactors and training facilities including a simulator may be used to substitute for or supplement the technical and on shift training specified in 4.0 and 5.0. Detailed records of this off site training shall be placed in the individual's training file. When a simulator is used the candidate shall actually perform all logged operations by a manipulation of controls of the simulator.



7.0

TESTS AND AUDITS

7.1

Progress tests similar to the requalification written examinations (APN-10B) shall be used to evaluate the effectiveness of the lecture series. Assignments to additional individual study or attendance at repeat lectures shall be made upon the basis of test results.

7.2

The Station Superintendent or his appointed representative shall conduct oral examinations and evaluations of demonstrated or simulated performance for each candidate prior to formal presentation to the licensing examiner. On the basis of these examinations and demonstrations a written evaluation shall be placed in the individual's training file.

7.3

Certifications completed, pursuant to Section 55.10 (a)(6) of 10CFR55 shall be signed by the Vice President - Nuclear Generation.

2

8.0

RECORDS

An individual training file shall be maintained for each candidate for the NRC Operator or Senior Operator License. This file shall contain the following materials:

8.1

Checklist listing the formal training lectures presented, length of lecture, the instructor presenting the lecture and the date of attendance.

8.2

A log of tests administered which shall include the general subject or system covered and the specific items if applicable. Results shall be recorded as to whether the candidate has mastered the subject or requires further study.

8.3

A log of reading assignments.

8.4

A checklist of the manipulations or evolutions which the candidate should be required to demonstrate or simulate and the results of an audit evaluation in terms of whether or not the candidate has successfully mastered the operation or requires additional practice and/or study. This record may be obtained from the candidate's training manual of on-the-job training.

8.5

Transcript of off site training and results.

8.6

A general evaluation of the candidates readiness to be presented for the written examinations and operating tests outlined in 10CFR Sections 55.21 and 55.22 and 55.23.

